OIPE JC56
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PATENT & TRADEMARK OFFICE

FIG. 1

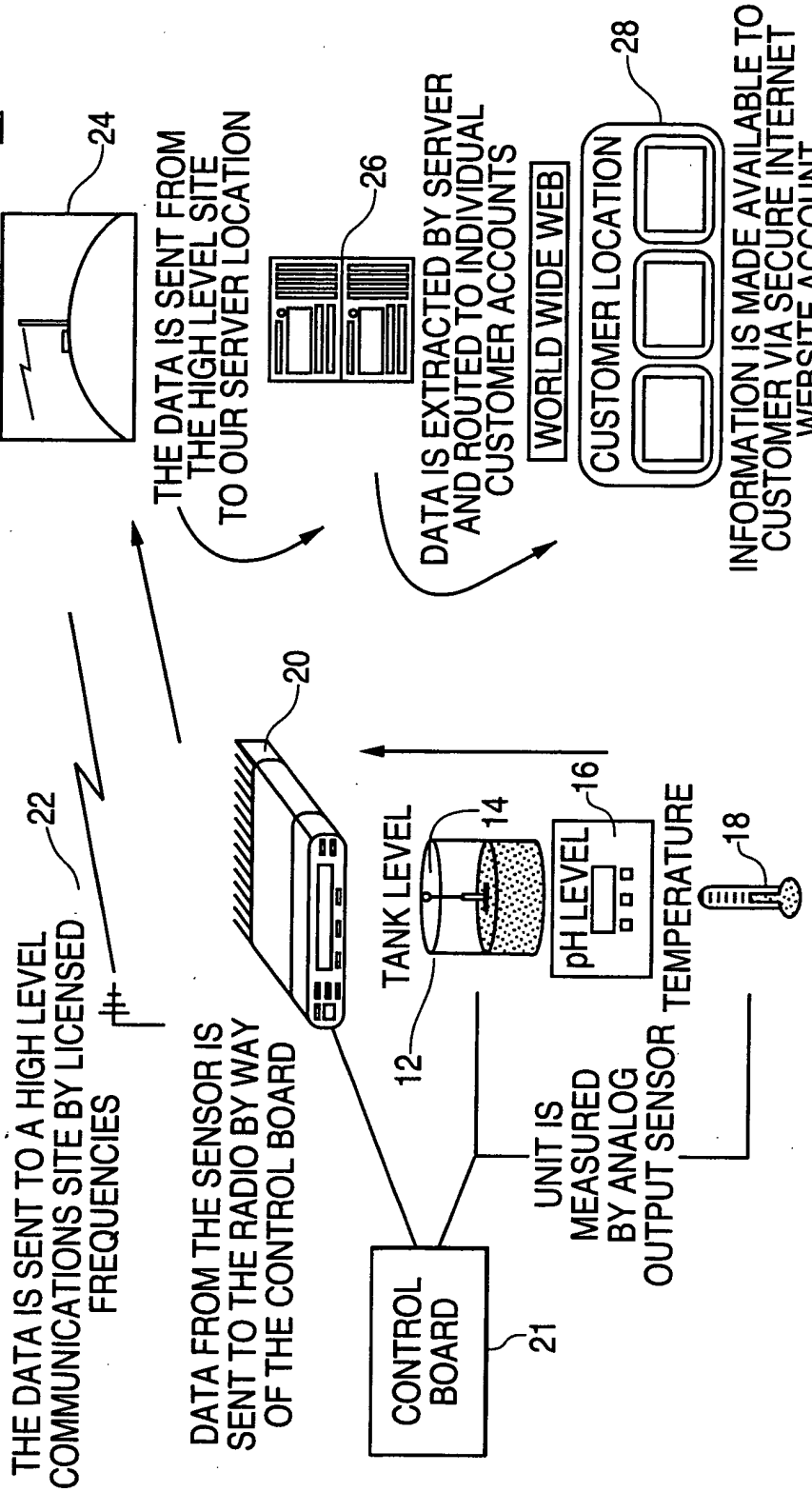


FIG. 2

INTERFACE OF UP TO 8 ANALOG DEVICES

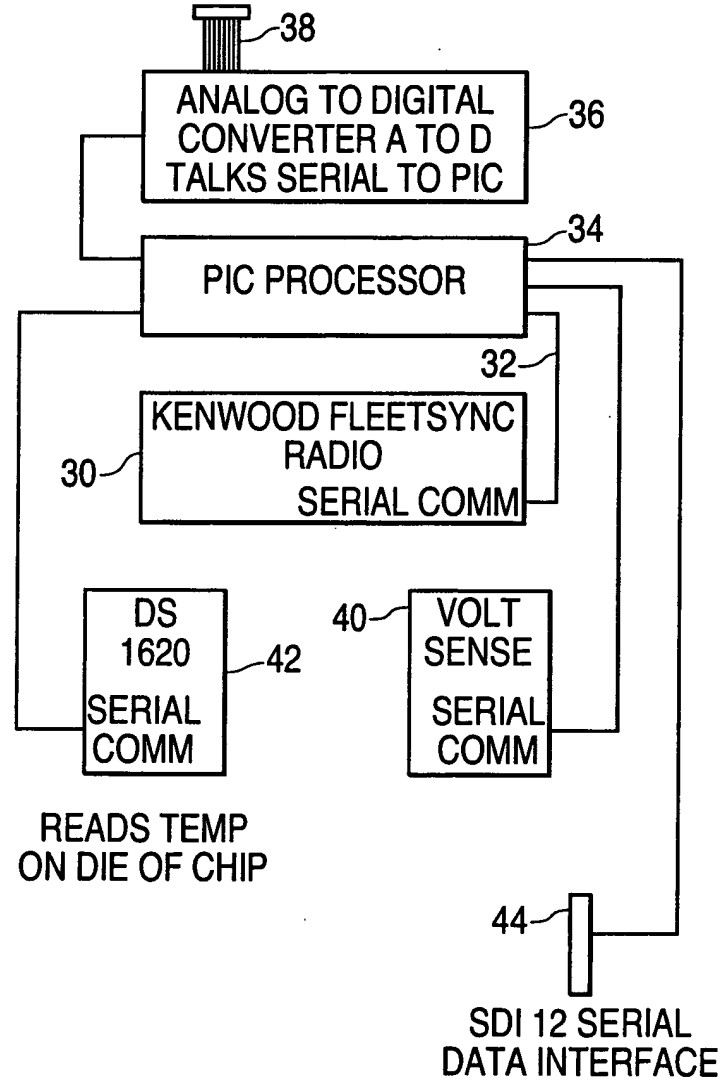


FIG. 3

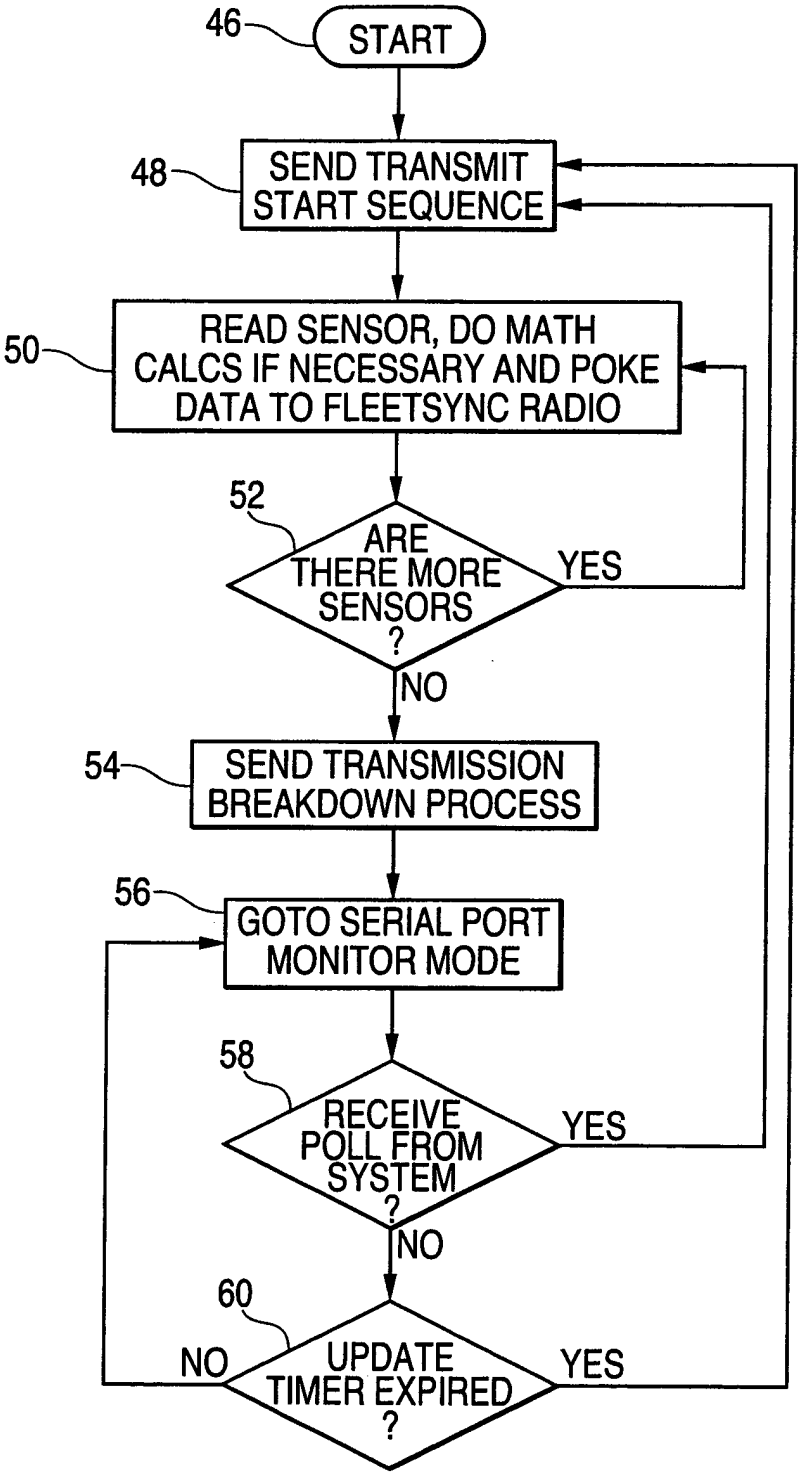

46
START
48
SEND TRANSMIT START SEQUENCE
50
READ SENSOR, DO MATH CALCS IF NECESSARY AND POKE DATA TO FLEETSYNC RADIO
52
ARE THERE MORE SENSORS ?
YES
NO
54
SEND TRANSMISSION BREAKDOWN PROCESS
56
GOTO SERIAL PORT MONITOR MODE
58
RECEIVE POLL FROM SYSTEM ?
YES
NO
60
UPDATE TIMER EXPIRED ?
NO
YES

FIG. 4

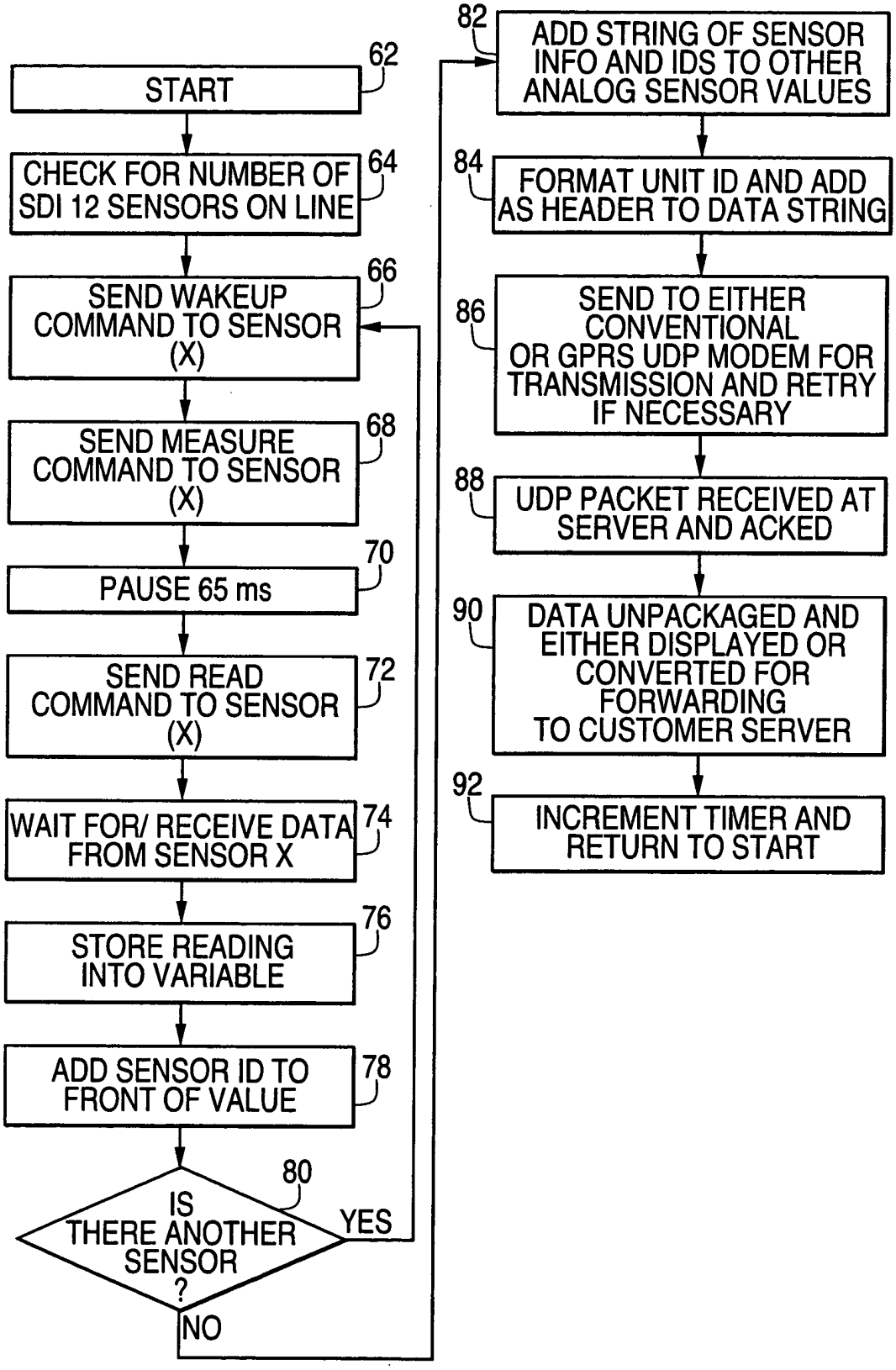

START
62
CHECK FOR NUMBER OF SDI 12 SENSORS ON LINE
64
SEND WAKEUP COMMAND TO SENSOR (X)
66
SEND MEASURE COMMAND TO SENSOR (X)
68
PAUSE 65 ms
70
SEND READ COMMAND TO SENSOR (X)
72
WAIT FOR/ RECEIVE DATA FROM SENSOR X
74
STORE READING INTO VARIABLE
76
ADD SENSOR ID TO FRONT OF VALUE
78
IS THERE ANOTHER SENSOR ?
80
YES
NO
ADD STRING OF SENSOR INFO AND IDS TO OTHER ANALOG SENSOR VALUES
82
FORMAT UNIT ID AND ADD AS HEADER TO DATA STRING
84
SEND TO EITHER CONVENTIONAL OR GPRS UDP MODEM FOR TRANSMISSION AND RETRY IF NECESSARY
86
UDP PACKET RECEIVED AT SERVER AND ACKED
88
DATA UNPACKAGED AND EITHER DISPLAYED OR CONVERTED FOR FORWARDING TO CUSTOMER SERVER
90
INCREMENT TIMER AND RETURN TO START
92

FIG. 5

CUSTOMER LIST

CUSTOMER NAME	ACCOUNT NO.
COMPANY A	000001
COMPANY B	000002
COMPANY C	000003
COMPANY D	000004
COMPANY E	000005
COMPANY E	000006

FIG. 6

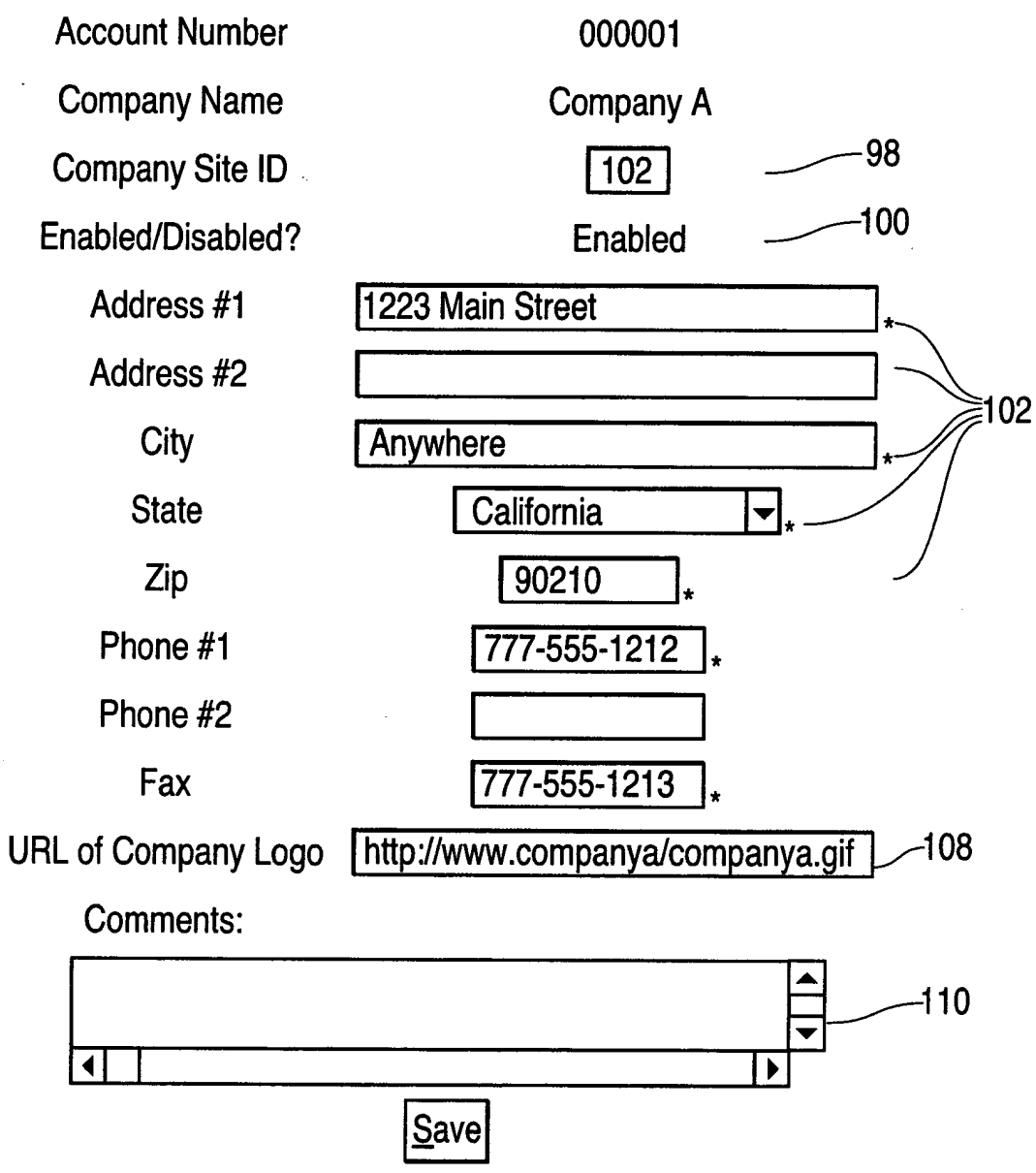

CREATE CUSTOMER ACCOUNT
Account Number
000001
Company Name
Company A
Company Site ID
102
98
Enabled/Disabled?
Enabled
100
Address #1
1223 Main Street
Address #2
City
Anywhere
State
California
Zip
90210
Phone #1
777-555-1212
Phone #2
Fax
777-555-1213
102
URL of Company Logo
http://www.companya/companya.gif
108
Comments:
110
Save

FIG. 7

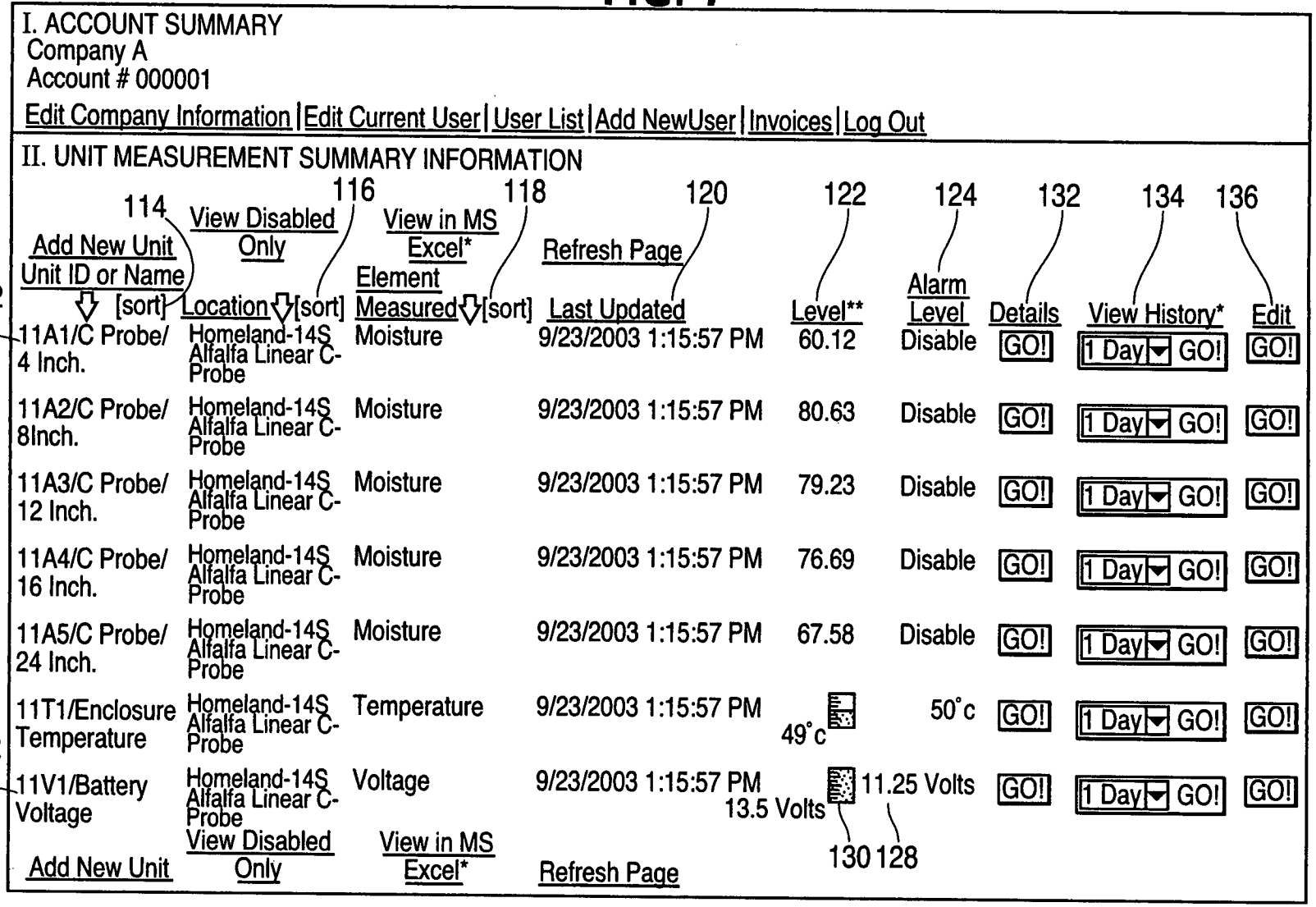

I. ACCOUNT SUMMARY
Company A
Account # 000001
Edit Company Information | Edit Current User | User List | Add NewUser | Invoices | Log Out
II. UNIT MEASUREMENT SUMMARY INFORMATION
114
116
118
120
122
124
132
134
136
112
Add New Unit
View Disabled Only
View in MS Excel*
Refresh Page
Unit ID or Name [sort]
Location [sort]
Element Measured [sort]
Last Updated
Level**
Alarm Level
Details
View History*
Edit
11A1/C Probe/ 4 Inch.
Homeland-14S Alfalfa Linear C-Probe
Moisture
9/23/2003 1:15:57 PM
60.12
Disable
GO!
1 Day GO!
GO!
11A2/C Probe/ 8Inch.
Homeland-14S Alfalfa Linear C-Probe
Moisture
9/23/2003 1:15:57 PM
80.63
Disable
GO!
1 Day GO!
GO!
11A3/C Probe/ 12 Inch.
Homeland-14S Alfalfa Linear C-Probe
Moisture
9/23/2003 1:15:57 PM
79.23
Disable
GO!
1 Day GO!
GO!
11A4/C Probe/ 16 Inch.
Homeland-14S Alfalfa Linear C-Probe
Moisture
9/23/2003 1:15:57 PM
76.69
Disable
GO!
1 Day GO!
GO!
11A5/C Probe/ 24 Inch.
Homeland-14S Alfalfa Linear C-Probe
Moisture
9/23/2003 1:15:57 PM
67.58
Disable
GO!
1 Day GO!
GO!
11T1/Enclosure Temperature
Homeland-14S Alfalfa Linear C-Probe
Temperature
9/23/2003 1:15:57 PM
49°c
50°c
GO!
1 Day GO!
GO!
112
11V1/Battery Voltage
Homeland-14S Alfalfa Linear C-Probe
Voltage
9/23/2003 1:15:57 PM
13.5 Volts
11.25 Volts
GO!
1 Day GO!
GO!
130
128
Add New Unit
View Disabled Only
View in MS Excel*
Refresh Page

FIG. 8

1. UNIT DETAIL INFORMATION

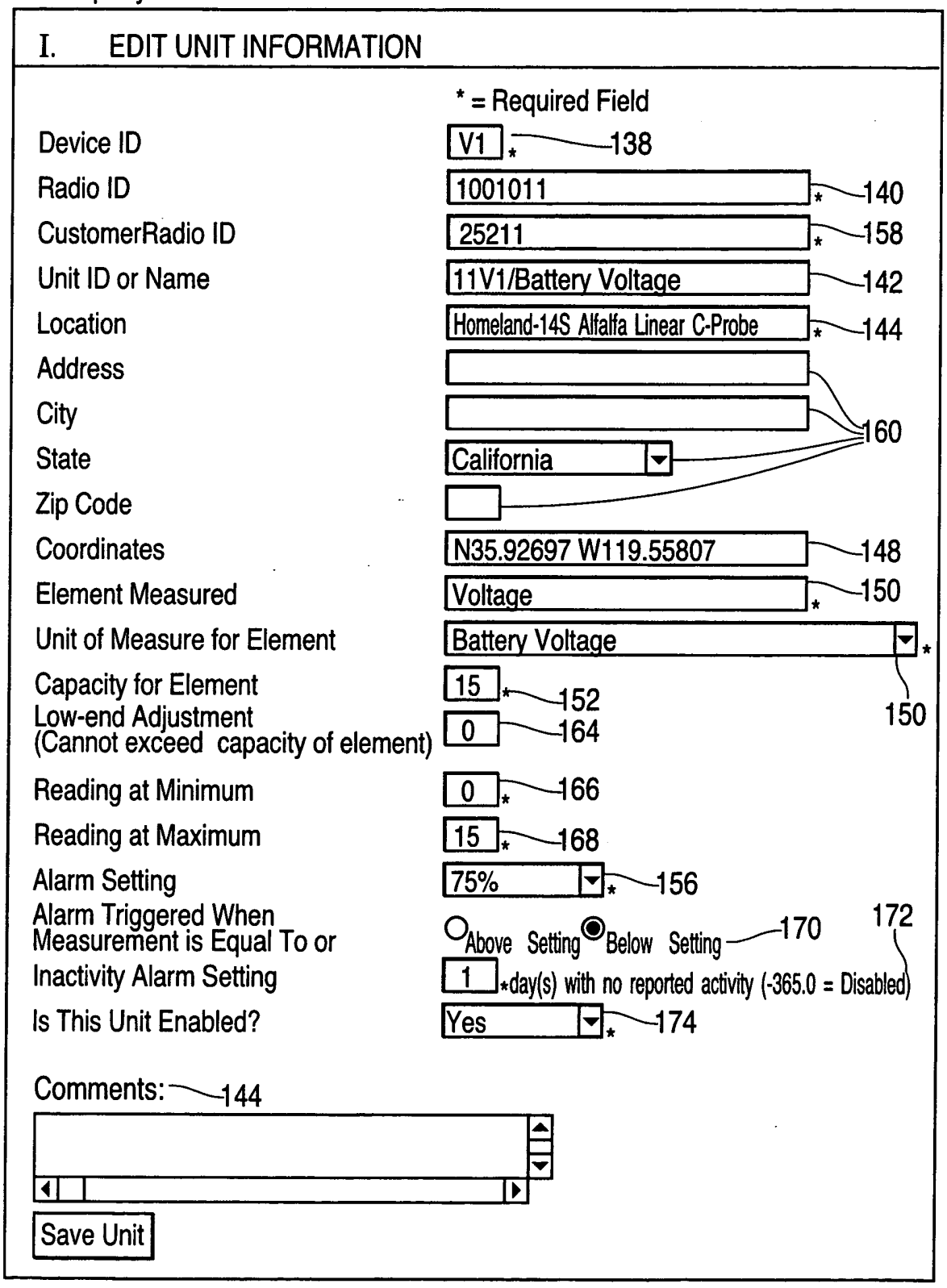
Device ID	138	V1
Radio ID	140	1001011
Unit ID or Name	142	11V1/Battery Voltage
Location	144	Homeland-14S ALFALFA Linear C-Probe
Address	146	
	148	,CA
Coordinates	150	N35.92697 W119.55807
Element Measured		Voltage
Capacity of Element	152	15 Volts
Low-end Adjust	154	15 Volts
Alarm Setting	156	Equal to or below 11.25 Volts
Inactivity Alarm Setting		1 Day with no activity.
Monthly Fee for this Unit		$20
Comments:		

10 Most Recent Reading For This Unit

Last Updated	Unit Level**
9/23/2003 1:30:32 PM	13.5 VoltS
9/23/2003 1:15:57 PM	13.5 Volts
9/23/2003 1:15:57 PM	13.5 Volts
9/23/2003 1:01:22 PM	14.2 Volts
9/23/2003 12:46:48 PM	14 Volts
9/23/2003 12:32.13 PM	13.5 Volts
9/23/2003 12:17:38 PM	13.5 Volts
9/23/2003 12:03:04 PM	13.5 Volts
9/23/2003 11:48:29 AM	13.5 Volts
9/23/2003 11:33:54 AM	13.5 Volts
9/23/2003 11:19:19 AM	13.5 Volts

**Unit levels shown in red are at or below this unit's designated alarm level.

FIG. 9


Company A
I. EDIT UNIT INFORMATION
* = Required Field
Device ID
V1
138
Radio ID
1001011
140
CustomerRadio ID
25211
158
Unit ID or Name
11V1/Battery Voltage
142
Location
Homeland-14S Alfalfa Linear C-Probe
144
Address
City
State
California
Zip Code
160
Coordinates
N35.92697 W119.55807
148
Element Measured
Voltage
150
Unit of Measure for Element
Battery Voltage
150
Capacity for Element
15
152
Low-end Adjustment
(Cannot exceed capacity of element)
0
164
Reading at Minimum
0
166
Reading at Maximum
15
168
Alarm Setting
75%
156
Alarm Triggered When
Measurement is Equal To or
Above Setting
Below Setting
170
172
Inactivity Alarm Setting
1
day(s) with no reported activity (-365.0 = Disabled)
Is This Unit Enabled?
Yes
174
Comments:
144
Save Unit